INTERMOUNTAIN POWER SERVICE CORPORATION

December 18, 2008

Cheryl Heying, Director
Utah Division of Air Quality
Department of Environmental Quality
150 North 1950 West
P.O. Box 144820
Salt Lake City, UT 84114-4820

Attention: John Jenks, Review Engineer, PSD/NSR Section

Dear Director Heying:

Notice of Intent: Emissions Control Device Upgrade at Intermountain Power

Intermountain Power Service Corporation (IPSC) is hereby submitting a Notice of Intent (NOI) to upgrade two emissions control devices at the Intermountain Generating Station (IGS) in Delta. The IGS is a coal fired steam-electric plant and a major source located in Millard County. IPSC intends to upgrade two fabric filters on an existing bulk materials handling system at the facility.

As required by Utah Administrative Code R307-401-5(2), the following information is provided:

PROCESS DESCRIPTION: IGS is a fossil-fuel fired steam-electric generating station that primarily uses coal as fuel for the production of steam to generate electricity. The steam cycle requires the use of circulating cooling water that is drawn from the Sevier River. That water is chemically softened with slaked quick lime to allow cycling in the cooling system. The slaked lime is made from pebbled calcium oxide (quicklime) brought in by enclosed truck or railcar, stored, and transferred pneumatically for use. That quicklime system has two fabric filters to be upgraded.

PRODUCTION SUMMARY: IPSC operates IGS on a 24 hour per day / 7 day per week continuous base load (full production rate) basis, up to 8,760 hours per year. Make-up water flow to the circulating cooling system is continuous during plant operation, requiring a continuous feed of slaked lime.

Source material is pebbled calcium oxide (quicklime), delivered by truck or rail, stored in two interconnected 750 ton silos, and batch transferred to a 30-ton day bin for feed to three slakers as needed. The transfer system includes a 30 ton per hour (tph) rotary feeder valve combined with a 1200 cubic feet per minute (CFM) blower to offload to the silo. A 12.5 tph rotary feeder valve combined with an 1100 cfm blower transfers lime from each silo to the day bunker (25 tph total capacity transfer rate with both silo feeders operating).

The existing pollution control system for the source consists of three fabric filters: two dust collectors with 1200 cfm exhaust blowers; and one vacuum receiver with two 2338 cfm blowers; all with pulse jet cleaning methodology. One fabric filter (DC-1) is located on one of the two interconnected silos for controlling particulate matter from offloading the bulk quicklime, and another fabric filter (DC-2) is located on the bay bin for controlling particulate matter from the transfer of quicklime from the silos. The vacuum receiver is an intermediate transfer vessel

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located between the railcar connection boot and the silos, and designed to be used only for railcar deliveries.

PROJECT DESCRIPTION: The current system has an imbalance between the material transfer rates and the dust collector fabric filter blower rates, causing high baghouse pressure, moisture build-up, and bag blinding. This has been a continuous source of operational and maintenance problems. The use of the latest fabric bag material technology combined with balanced pneumatic flows to better match fabric filter capacity to transfer rates will alleviate these problems.

This project will replace existing baghouse exhaust blowers on DC-1 and DC-2 with blowers of larger flow capacities to balance with the transfer blower rates, and replace current polyester cloth bags with acrylic-teflon bags to enhance capture and reduce blinding. A logic control system will also be added to control pulse jet cleaning cycles based on differential pressure rather than timed cycling. No changes will be made to the physical configuration of the baghouses.

No changes to the vacuum filter receiver nor the source transfer and storage system will occur. Material throughput and handling quantities will remain the same.

SYSTEM & EMISSION CHARACTERISTICS:

Fabric Filter DC-1	Before change	After change
Exhaust blower	1200 cfm	2320 cfm
Fabric material	Polyester	Acrylic-teflon
Bag size	7 5/8" X 72"	7 5/8" X 72"
# of bags	24	24
Filter area	288 ft^2	nominal 288 ft^2
Feed stock rate	30 tph	30 tph
Transfer Blower	1200 cfm	1200 cfm
Particulate Loading (uncontrolled)	2.2 lb/t (66 lb/hr)	2.2 lb/t (66 lb/hr)
Air-to-Cloth ratio	4.1	8.1
Vent size	6"	8"
Vent velocity	100 fps	110 fps
Particulate Matter 2.5um ($PM_{2.5}$):	0.024 grain/dscf	0.016 grain/dscf
Particulate Matter 2.5um ($PM_{2.5}$):	0.25 lb/hr	0.31 lb/hr
Potential-to-emit ($PM_{2.5}$)	1.1 tpy	1.4 tpy

(NOTE: Assuming all particulate matter emitted is $PM_{2.5}$, subsuming PM and PM_{10} in total emissions.)

Fabric Filter DC-2	Before change	After change
Exhaust blower	1200cfm	2320cfm
Fabric material	Polyester	Acrylic-teflon
Bag size	7 5/8" X 72"	7 5/8" X 72"
# of bags	24	24
Filter area	288 ft^2	nominal 288 ft^2
Feed stock rate (both silos)	25 tph	25 tph
Transfer Blower	1100 cfm	1100 cfm
Particulate Loading (uncontrolled)	2.2 lb/t (55 lb/hr)	2.2 lb/t (55 lb/hr)
Air-to-Cloth ratio	4.1	8.1
Vent size	6"	8"
Vent velocity	100 fps	110 fps

Particulate Matter 2.5um ($PM_{2.5}$):	0.024 grain/dscf	0.016 grain/dscf
Particulate Matter 2.5um ($PM_{2.5}$):	0.25 lb/hr	0.31 lb/hr
Potential-to-emit ($PM_{2.5}$)	1.1 tpy	1.4 tpy

(NOTE: Assuming all particulate matter emitted is $PM_{2.5}$, subsuming PM and PM_{10} in total emissions.)

Emission Calculation
$E_{PM2.5}$ = 0.016 gr/dscf * 2320 dscfm * 60min/hr / 7000 gr/lb = 0.31 lb/hr
$E_{PM2.5}$ = 0.016 gr/dscf * 2320 dscfm * 60min/hr * 8760 hr/yr / 7000 gr/lb / 2000 lb/ton = 1.39 ton/yr

Fugitive Emissions
Fugitive emissions from lime unloading and transfer are expected to be non-existent in that the supply is brought in bulk in fully enclosed containers. Those containers are connected by sealed lines, and the lime is pneumatically transferred to enclosed silos and bunkers.

3. **PCD DESCRIPTION:**

Fabric Filter DC-1
This pollution control device is a 24 bag, negative pressure fabric filter with an exhaust blower rated at 7.5hp and 2320 cfm. The bags are teflon coated acrylic construction on wire cages. The baghouse utilizes pulse jet cleaning methodology. This fabric filter is located to control particulate emissions of lime being transferred at up to 30 tons per hour.

Fabric Filter DC-2
This pollution control device is a 24 bag, negative pressure fabric filter with an exhaust blower rated at 7.5hp and 2320 cfm. The bags are teflon coated acrylic construction on wire cages. The baghouse utilizes pulse jet cleaning methodology. This fabric filter is located to control particulate emissions of lime being transferred at up to 12.5 tons per hour per silo (25 tph total).

Railcar Unloading Vacuum Filter Receiver
This pollution control device is a 59 bag, negative pressure fabric filter with two exhaust blowers rated at 100hp and 2338 cfm. The bags are polyester cloth construction on wire cages. The baghouse utilizes pulse jet cleaning methodology. This fabric filter is located to control particulate emissions of lime being transferred from railcars to the silos to accommodate a 30-tph transfer rate. No changes to this device is proposed. (Currently unused and not permitted for use.)

All of the above devices would be considered to meet BACT for the type and rate of emissions.

4. **EMISSION POINT:** Fabric filter DC-1 discharges through an 8" vent at about 4745 feet above sea level (69 feet above grade). Fabric filter DC-2 discharges through an 8" vent at about 4735 feet above sea level (59 feet above grade).

5. **OPERATING SCHEDULE:** Operation at IGS is 24 hours per day, seven days per week. These devices can therefore be used at any time for any period. The normal operating period is batch operation for either unloading or bunker fill as needed.

6. **ADDENDUMS:** A flow diagram and specifications are included for clarification.

7. **ADDITIONAL INFORMATION:** IGS operates under a Title V permit (#2700010003). IPSC intends to continue to operate in full compliance with that permit and applicable requirements. No deviations from permit conditions are expected with this change.

Applicability Determinations

New Source Performance Standards. IGS operates as a New Source Performance Standard (NSPS) power plant, regulated under Title 40 of the Code of Federal Regulations, Part 60, Subpart Da, and is not being modified. The proposed emission unit change is not regulated as a source category under NSPS. Specifically, IPSC does not process (grind or crush) lime, nor is lime listed as source material under nonmetallic minerals, and, therefore does not fall under nonmetallic mineral processing source category at 40 CFR Part 60 Subpart OOO. Additionally, IPSC does not manufacture lime, and thus does not fall under the lime manufacturing source category at 40 CFR Part 60 Subpart HH. Therefore, the proposed changes do not trigger NSPS applicability.

Prevention of Significant Deterioration. IGS was constructed and has been previously modified under Prevention of Significant Deterioration (PSD) permits, and the proposed change is not a major modification for PSD purposes. The IGS is located in an unclassified or attainment area. The pollutants of interest under NAAQS for this NOI are PM, PM_{10}, and $PM_{2.5}$. The triggers for significant increases for these pollutants under PSD are 25, 15 and 10 tons per year, respectively. At a calculated increase of about 0.6 tons per year in PTE, this upgrade does not fall under major modification requirements for any of the pollutants of interest. No other regulated pollutants are affected by this change.

Best Available Control Technology (BACT). IGS was constructed and has been previously modified under PSD permits which required BACT. Since the change described in this NOI is not a major modification for PSD purposes, the existing BACT at IGS is still the required level of pollution control. Although this upgrade does not fall under NSPS for PM, it will have design emission criteria of 0.016 g/dscf which meets newly proposed NSPS for nonmetallic mineral processing.

National Emission Standards for Hazardous Air Pollutants (NESHAPs). IGS does not manufacture lime nor does primary stone handling, so thus this upgrade does not fall under NESAHPs at 40 CFR Part 63 Subpart AAAAA.

Potential-to-Emit. The PTE for IGS Units 1 & 2 would not change due to this upgrade. The upgraded emission units will have a PTE (at 8760 hours of use) of:

DC-1	
$PM_{2.5}$	1.39 tons/yr
DC-2	
$PM_{2.5}$	1.39 ton/yr

(NOTE: Assuming all particulate matter emitted is $PM_{2.5}$, subsuming PM and PM_{10} in total emissions.)

Title V Permit and Approval Order

The change proposed herein has the potential to affect the current Title V permit. Specifically, Special Provisions II.A.31 & II.A.32 of Title V permit #2700010003 could be modified so the descriptions for emission units EU29 and EU30 will reflect the new flow capacity and air-to-cloth ratio of those emissions units. No changes to the language in AO #DAQE-AN0327015-05 are required for this project.

The compliance provisions for operating these units are applicable as currently written. No changes to the conditions in AO #DAQE-AN0327015-05 nor Condition II.B.9 in Title V permit #2700010003 are required.

Inasmuch as this notice of intent may affect our Title V Operating Permit, I hereby certify that, based on information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate, and complete.

Should you require further information to expedite the approval of this request, please contact Mr. Jon Christensen, Superintendent of Technical Services, at (435) 864-4414, or by e-mail to jon-c@ipsc.com.

Cordially,

George W. Cross
President, Chief Operations Officer, and Title V Responsible Official

BP/RJC:jmj

Enclosures: System Specifications and Flow Diagram

cc: Blaine Ipson, IPSC
Nick C. Kezman, LADWP